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Oxidative respiratory systems of the tea leaf. [A. I. Oparin and T. A. Shubert. *Biokhimiya Chalnogo Proizvodstva, Sbornik No. 6, 82-94 (1950).*]—Spectroscopic and gasometric methods failed to reveal the presence of any cytochrome oxidase in Georgian tea leaf. Suspensions of such leaves in H₂O can oxidize hydroquinone but less vigorously than they attack pyrocatechol or other o-phenols. Tyrosine of the tea leaf is not oxidized by this system. Flavoprotein enzymes are also absent. Absorption of O₂ by the leaf is completely repressed by CN⁻, showing that the terminal phase of respiration is done wholly by the polyphenoloxidase. G. M. Kosolapoff

CA

11D

Basic principles of study of oxidative enzymes of tea.
M. A. Bokuchava and T. A. Shubert. *Biokhimiya Chayogo Proizvodstva, Sbornik nauchnykh trudov*, No. 3(1950). - Oxidative enzymes in tea leaf are largely in the bound form, very little enzyme matter being in the unbound, free state. Then detn. in aq. solns. gives an erroneous estn. of actual content of enzymes in the leaf. By means of extn. with Me_2CO one obtains exts. contg. all polyphenoloxidase and peroxidase of the leaf and such exts. are most convenient for enzymic studies since they are tannin-free, as well as free of chlorophyll and other masking substances. A sep. detn. of peroxidase in anaerobic conditions in the presence of polyphenoloxidase was developed. The specimen in a dry vacuum vessel (a vertical test-tube with 2 rotatable side vessels like those in modified Warburg flasks) is mixed with NaNO_3 soln. to give a *M* soln. of the inhibitor; 3 ml buffer (pH 5.3) and 5 ml. H_2O are added, the lower side vessel is charged with 2 ml. substrate (1% pyrogallol, catechol, tea tannin, etc.) and 2 ml. 1% H_2O_2 , while the upper vessel carries 3 ml. 20% H_2SO_4 . After evacuation and degassing at 8-10 mm. the pump is disconnected and the substrate is added to the test specimen. The action is stopped at the end of the run by the addn. of the H_2SO_4 soln. Colored oxidation products from action of peroxidase are then detd. as usual by colorimetry.
G. M. Kosolapoff

SHUBERT, T. A.

"The Phenolase Process and Its Role in the Respiration and
Fermentation of Tea." Sub 27 Dec 51, Inst of Biochemistry imeni
A. N. Bakh, Acad Sci USSR.

Dissertations presented for science and engineering degrees
in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

J.A. Shubert

✓Coacervates and enzymes. Protein-carbohydrate coacervates and α -amylase. A. I. Oparin, T. N. Byreinova, T. A. Shubert, and M. N. Nestyuk. *Doklady Akad. Nauk S.S.R.* 104, 581-3 (1955); cf. *C.A.* 46, 9640s. Mixts. of sol. starch soln., protamine sulfate, gelatin and α -amylase were made up at 50° and adjusted to pH 7, to form the coacervate droplets, which were incubated at 60°. Periodic detns. of starch were made with I-KI. Thus, there was shown the progression of formation of amylopectins, erythropectins, and acha-ropectins. Starch *per se* is more rapidly attacked by amylase than is the coacervate. At pH 5.2-5.2 gelatin and protamine definitely retard amylase action on starch. G. M. Kosolapoff.

(3)

✓ 2348. Coacervates and enzymes. Protein-carbohydrate coacervates and β -amylase. T. N. Byrolova, T. A. Shubert, and M. N. Neftuk.
Dokl. Akad. Nauk. S.S.R., 1955, 105, 137-140; Referat. Zn. biol. Kaim., 1956, Abstr. No. 12265.—In order to obtain coacervates, 0.25—1 ml. of 1% aqueous sol. or phosphorylated starch [III] was added to 2 ml. of a mixture of 0.67% aqueous gelatin [I] and gum arabic [II] (5 : 3) and the vol. brought up to 3 ml. with the addition of water. This mixture was heated for 3 min. at 40—42° and acidified with acetic acid to pH 4.0—4.85. After centrifuging and cooling, the distribution of the starch between the ppt. (coacervate drops) and the supernatant was determined. The starch concn. in the ppt. was 2—4.5 times higher. In order to determine the degree of effective action of the β -amylase in coacervates, a 0.5% sol. of β -amylase was added to the mixture of I, II, and III. After acidifying with acetic acid to pH 4.82—4.85, the mixture was kept for 18 min. at 42° and centrifuged, and the action of the β -amylase was determined by the amount of reducing sugar liberated. The same mixture with inactivated (boiled) β -amylase was used as a control. The maltose concn. in the coacervate drops was 4 times higher than in the centrifuged mixture, because of the action of the enzyme on the starch and not because of the adsorption of maltose by coacervate drops. (Russian) *J. Parka*

SHUBERT, T.A.

Relation between tea leaf respiration and fermentation. Biokhim.
chain.proizv. no.7:149-158 '59. (MIRA 13:5)

1. Institut biokhimii imeni A.N. Bakha AN SSSR, Moskva.
(TEA) (PLANTS--RESPIRATION)

BARDINSKAYA, M.S.; SHUBERT, T.A.

Phenol compounds in cereals. Biokhimia 27 no.1:58-64 Ja-F '62.
(MIRA 15:5)

1. Institute of Plant Physiology, Academy of Sciences of the U.S.S.R.,
Moscow.

(PHENOOLS) (GRAIN)

BARDINSKAYA, M.S.; PRUSAKOVA, L.D.; SHUBERT, T.A.

Growth regulators of the polyphenol group. Dokl. AN SSSR 142
no.1:222-225 Ja '62. (MIRA 14:12)

1. Institut fiziologii rasteniy im. K.A. Timiryazeva Akademii
nauk SSSR. Predstavлено академиком A.L. Kursanovym.
(Plants, Effect of ferulic acid on)

BARDINSKAYA, M.S. [deceased]; PRUSAKOVA, L.D.; SHUBERT, T.A.

Interaction of ferulic acid with gibberllin and indolylacetic acid in the process of plant growth. Dokl. AN SSSR 146 no.6:1445-1448 O '62.
(MIRA 15:10)

1. Institut fisiologii rasteniy im. K.A. Timiryazeva AN SSSR.
Predstavлено академиком А.Л. Курсановым.
(Growth-promoting substances)

BARDINSKAYA, Margarita Sergeevna [deceased]; KURSANOV, A.L.,
akademik, otv. red.; MANSKAYA, S.M., red.; MOSKALEVA,
V.Ye., red.; SHUBERT, T.A., red.; ZAPROMETOV, M.N., red.;
PAVLINOVA, O.A., red.

[Plant cell walls and their formation; some problems of
the chemistry, biochemistry and physiology of lignifi-
cation] Rastitel'nye kletochnye stenki i ikh obrazova-
nie; nekotorye voprosy khimii, biokhimii i fiziologii
odrubesneniya. Moskva, Nauka, 1964. 158 p.
(MIRA 18:1)

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9

SHUBERT, T.K., dots.

Asphalt-concrete blocks used in road construction. Avt.dor. 22
no.3:22-23 Mr '59. (MIRA 12:4)
(Concrete slabs) (Road construction)

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9"

SCHUBERT, V. F.

Inst. Epidemiology and Microbiology, (-1944-).

"To the "casuistics" of the outbreaks of typhus abdominalis of aquatic origin,"

Zhur. Mikrobiol., Epidemiol., i Immunobiol., No. 4-5, 1944.

SHUBERT, V.

P# 51159

UNR/Medicine - Brucellosis
Medicine - Pediatrics

Mar 1948

"Professor Sokolova-Ponomareva's Book, 'Brucellosis
in Children', V. Shubert, 1 p

"Sovets Medits" No 3

Review of monograph written to acquaint pediatricians
with the course in brucellosis in children. Two
hundred eighty children from ages 1-15 furnished
clinical material for the work.

51159

SHUBERT, V. F.

USSR/Medicine - Typhoid Fever
Medicine - Dysentery, Sequels

Aug 48

"The Problem of Recurrent Typhoid Fever," V. F.
Shubert, Tamborsk Mun Hosp, 2 pp

"Sov Med" No 8

Shubert ridicules general impression that one attack of dysentery will prevent recurrences. Describes several case histories. Recurrences are usually less severe than initial attacks.

24/49T80

SHUBERT, V. F.

PA 46/49T61

USSR/Medicine - Brucellosis
Medicine - Literature, Medical

Feb 49

X "Review of Professor A. F. Bilibin's 'Brucellosis,
Its Diagnosis and Treatment," V. F. Shubert, 3/4 P

"Sov Med" No 2

Discusses subject book favorably. Finds it a comprehensive coverage of brucellosis, in which the method of treatment is thoroughly discussed.

46/49T61

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9

MIKHAYLOV, G. (g.Chelyabinsk); KUZNETSOVA, A.; KORABLENKOVA, Z.;
SHUBERTOV, V., tekhnolog (g.Moskva)

Letters to the editor. Obshchestv.pit. no.4:48 Ap '61.
(MIRA 14:3)
(Restaurants, lunchrooms, etc.)

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9"

SHUBICH, F.I.

Ionization in food preservation. Kons.i ov.prom. 14 no.12:
38-39 D '59. (MIR 13:3)
(Radiation sterilization)
(Food--Preservation)

RUKAVTSOV, B.I.; SHUBICH, M.G.

Cytochemical investigation of polysaccharides in the typhoid-paratyphoid group of bacteria. Zhur. mikrobiol., epid. i immun. 27 no.8: 72-76 Ag '56.
(MIRA 9:10)

1. Iz kafedry mikrobiologii i histologii Kubanskogo meditsinskogo instituta.

(*SAIMONELLA PARATYPHI*, metabolism,
polysaccharides, determ. (Rus))

(*SAIMONELLA TYPHOSEA*, metabolism,
same)

(*POLYSACCHARIDES*, metabolism,
Salmonella paratyphis & typhosa, determ. (Rus))

SHUBICH, M.G. (Krasnodar, ul. Lenina, d. 51.)

Distribution of glycogen in fibers of the skeletal muscle.
Arkh.anat.gist.i embr. 33 no.3:32-34 Jl-S '56. (MIRA 12:11)

1. Iz kafedry gistologii i embriologii (zav. kand.biol.nauk.
G.F.Berezentseva) Kubanskogo meditsinskogo instituta (dir. -
prof.F.Kh.Chekhlatty)

(GLYCOGEN, metabolism,

musc. (Rus))

(MUSCLES, metabolism,

glycogen (Rus))

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9

SHUBICH M.G.
BEREZENTSEVA, G.F.; SHUBICH, M.G.

New optical method for counting blood platelets in a counting chamber.
Lab.delo 3 no.4:25-27 Jl-Ag '57. (MLRA 10:8)

1. Iz kafedry histologii Kubanskogo meditsinskogo instituta
(PHASE MICROSCOPE) (BLOOD PLATELETS)

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9"

RUKAVTSOV, B.I.; SHUBICH, M.G.

Optical coloration in laboratory diagnosis. Lab.delo 3 no.5:54-56
(MIRA 11:2)
S-0 '57.

1. Iz kafedr mikrobiologii (zav. - prof. B.P.Pervushin) i histologii
(zav. - dotsent G.F.Berezentseva) Kubanskogo meditsinskogo instituta.
(MICROSCOPY)

SHUBICH, M.G.

Method of histochemical determination of potassium [with summary
in English] Biul. eksp. biol. i med. 43 no.2:118-119 F '57
(MLRA 10:5)

1. Iz kafedry gistologii (zaveduyushchiy-dotsent G.F. Berezentseva)
Kubanskogo meditsinskogo instituta (direktor-professor V.K.
Suprunov) Predstavlena deystvitel'nym chlenom AMN SSSR V.N.
Chernigovskim.

(POTASSIUM, determination,
histochem. method) (Rus)

SHUBICH, M.G.

Cytochemistry of leukocyte glycogen in leukemia [with summary in English, p.63]. Probl.gemat. i perel.krovi 3 no.3:16-20 My-Je '58
(MIRA 11:6)

1. Iz kafedry gistolologii (zav. - dotsent G.D. Berezentseva)
Kubanskogo gosudarstvennogo meditsinskogo instituta.

(LEUKEMIA, blood in,
glycogen in leukocytes (Rus))
(GLYCOGEN, in blood,
in leukemias (Rus))

M. G. SHURICH

"On the results of the histochemical investigation of the glycogene of muscular tissue"

The Chemistry and Metabolism of Carbohydrates in Animal and Plant Organisms.
Conference in Moscow. January 28 to January 30 1956.

(VAN SSSR No 6 '58)

SHUBICH, M.G. (Krasnodar)

Acidified basic fuchsin solution as a reagent for the color determination of aldehyde groups in histochemical reactions with desoxyribonucleic acid, glycogen, and plasmal. [with summary in English]. Arkh.pat. 20 no.9:79-82 S'58 (MIRA 11:10)

1. Iz kafedry histologii (zav. dots. G.F. Berezentseva) Kubanskogo meditsinskogo instituta.

(PLASMAL,

plasmal, histochem. reaction with acidified basic fuchsin solution as reagent (Rus))

(GLYCOGEN, determ.

histochem. reaction with acidified basic fuchsin solution as reagent (Rus))

(DESOXYRIBONUCLEIC ACID, determ.

same (Rus))

(ROSALINE DYES,

acidified basic fuchsin solution in histochem. determ. of desoxyribonucleic acid, glycogen & plasmal (Rus))

SHUBICH, M.G.

A new method of selective staining of mast cells. Biul. eksp. biol. i med. 46 no.12:110 D '58. (MIEA 12:1)

1. Iz kafedry gistologii Kubanskogo meditsinskogo instituta (zav. - dots. G. F. Berezentseva i Moskovskogo meditsinskogo stomatologicheskogo instituta (zav. - prof. L. I. Falin. Predstavlena deystvitel'nym chlenom AMN SSSR V.N. Chernigovskim.

(MAST CELLS,
selective stain. (Rus))

SHUBICE, M. G., Candidate Med Sci (diss) -- "Histochemical investigation of transversostriated muscle fiber". Moscow, 1959. 14 pp (Min Health RSFSR, Moscow Med Stomatological Inst), 200 copies (KL, No 23, 1959, 174)

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9

SHUBICH, M. G.

"The Use of the Tridiazonium of Rosaniline in Histochemical Technique."

report submitted for the First Conference on the problems of Cyto and
Histochemistry, Moscow, 19-21 Dec 1960.

From the Chair of Histology of Kuban' Medical Institute, Krasnodar.

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9"

MILASH, G.R.; SHUBICH, M.G.

Selective staining of pathogenic fungi in histological preparations
of the skin. Vest.derm.i ven. 34 no.3:21-24 My-Je '60.
(MIRA 13:10)

(FUNGI) (SKIN)
(STAINS AND STAINING (MICROSCOPY))

SVERCH, N. G. (USSR)

"Cytochemical Investigation on the Structural Organization of
the Cross-striated Muscle Fibre (read by title)."

Report presented at the 5th Int'l. Biochemistry Congress,
Moscow, 10-14 Aug 1961

SHUBICH, M.G.

Method for the selective staining of acid (sulfated) mucopolysaccharides by basic cinnamate. Biul. eksp. biol. i med. no.2:116-120 F '61.
(MIRA 14:5)

1. Iz kafedry gistologii (zav. - dotsent G.F.Berezentseva) Kubanskogo meditsinskogo instituta i kafedry gistologii Moskovskogo meditsinskogo stomatologicheskogo instituta (zav. - prof. L.I.Falin).
Predstavlena deystvitel'nym chlenom AMN SSSR N.A. Krayevskim.
(POLYSACCHARIDES) (STAINS AND STAINING (MICROSCOPY))
(CINNAMATE)

SHUBICH, M.G.; KUTAKH, G.I.

Method for multicolored staining of the gastric mucosa based
on the histochemical detection of acid and neutral mucopolysaccharides,
protein and nucleic acids. Arkh. anat., gist. i embr. 43 no.11:112-113 N '62.
(MIRA 17:8)

1. Kafedra gistologii (zav. - dotsent M.G. Shubich) i kafedra
biokhimii (zav. - prof. N.P. Pyatnitskiy) Kubanskogo meditsinskogo instituta. Adres avtorov: Krasnodar, Kubanskiy
meditsinskiy institut, kafedra gistologii i kafedra biokhimii.

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9

SHUBICH, M.G.

Intergranular cytoplasm of mast cells. TSitologija 5 no.5:
(MIRA 17:4)
580-582 S-0 '63.

I. Kafedra gistolozii Kubanskogo meditsinskogo institut, Krasnodar.

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9"

SHUBICH, M.G. (Krasnodar, ulitsa Lenina, 51, kvartira 12)

Histochemical method of detecting keratin by using an acid
solution of basic brown. Arkh. anat., gist. i embr. 44. no.
6:114-116 Je '63. (MIRA 17:7)

1. Kafedra gistologii (zav. - dotsent M.G. Shubich) Kubanskogo
meditsinskogo instituta, Krasnodar.

OYVIN, I.A.; MILASH, G.P.; SHUBICH, M.G.; VENGLINSKAYA, Ye.A.;
LUTSENKO, N.M.; MUKHAMEDZHANOV, I.A.; TOKAREV, O.Yu.;
SHCHEGEL', S.M.; YAGODKINA, Ye.G. (Krasnodar)

Relation of the development of inflammation to the state of
the blood coagulation system. Arkh. pat. 26 no.2:63-68 '64.
(MIRA 17:8)

1. Kafedra patologicheskoy fiziologii (zav. - prof. I.A. Oyvin),
kafedra patologicheskoy anatomii (zav. - dotsent G.P. Milash)
i kafedra gistologii (zav. - dotsent M.G. Shubich) Kubanskogo
meditsinskogo instituta.

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9

SHUBICH, M.G.

Cytological determination of alkaline phosphatase in leucocytes.
(MIRA 18:1)
Lab. delo. no.1:10-14 '65.

1. Kafedra gistologii (zaveduyushchiy - dotsent M.G. Shubich)
Kubanskogo meditsinskogo instituta, Krasnodar.

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9"

SHUBICH, M.G.; ASHMAN, A.A.

Cytochemical study of alkaline phosphatase of the leucocytes
in brain insultus. Zhur. nevr. i psikh. 65 no.1:29-31 '65.
(MIRA 13:2)

1. Kafedra nervnykh bolezney (zaveduyushchiy - prof. M.I.
Kholodenko) i kafedra gistologii (zaveduyushchiy - dotsent
M.G. Shubich) Kubanskogo meditsinskogo instituta, Krasnodar.

SHUBICH, M.G. (Krasnogorsk)

Variation of Daniell's histochromical reaction for protein.
(MIR 17:11)
Arkh. pat. no.12:68-70 163.

1. Is kafedry gistologii (zav. - nauchn. M.G. Shubich) Kuban-
skogo meditsinskogo instituta.

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9

БИОЛОГИЧЕСКАЯ АКТИВНОСТЬ
И МАКРОФАГИЧЕСКАЯ АКТИВНОСТЬ
В КРОВИ У ЧЕЛЮСТНО-СИСТЕМНЫХ
БОЛЕЗНЕЙ И ВОПРОСЫ ПРИМЕНЕНИЯ
МЕДИКАМЕНТОВ В ЛЕЧЕНИИ
БОЛЕЗНЕЙ ОРГАНОВ ДЫХАНИЯ
И СИСТЕМЫ КРОВООБРАЩЕНИЯ
ВО ВРЕМЯ ПРОЦЕССА РЕМОДЕЛИРОВАНИЯ
И РЕГЕНЕРАЦИИ ОРГАНОВ

БИОЛОГИЧЕСКАЯ АКТИВНОСТЬ
И МАКРОФАГИЧЕСКАЯ АКТИВНОСТЬ
В КРОВИ У ЧЕЛЮСТНО-СИСТЕМНЫХ
БОЛЕЗНЕЙ И ВОПРОСЫ ПРИМЕНЕНИЯ
МЕДИКАМЕНТОВ В ЛЕЧЕНИИ
БОЛЕЗНЕЙ ОРГАНОВ ДЫХАНИЯ
И СИСТЕМЫ КРОВООБРАЩЕНИЯ
ВО ВРЕМЯ ПРОЦЕССА РЕМОДЕЛИРОВАНИЯ
И РЕГЕНЕРАЦИИ ОРГАНОВ

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9"

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9

SHUBICH, M. S. i P. N. T. N.

Qualitative determination of basophilic leucocytes in the blood.

Qualitative determination of basophilic leucocytes in the blood.
Prakt. genet. i patol., kiev 19 no. 4:37-39 Apr '65. (MIRA 18 6)

A. Raffrova ginekologii (zav. A. doceent M.O. Shubich) i kafedra
ginekologii i vnutr. terapii (zav. A. doceent T.R. Petrova) Kishanskogo
meditsinskogo instituta.

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9"

SHUBICH, M.G. (Krasnodar)

Method of staining plasmatic cells. Arkh. pat. 27 no.4:130-81 '65.
(MIRA 18:5)

1. Kafedra gistologii (zav. ~ dotsent M.G.Shubich) Kubanskogo
meditsinskogo instituta.

SHUBICH, M.G.

Cytochemistry of protein substances in leucocytes. Arkh. anat.
gist. i embr. 48 no.4:53-57 Ap '65. (MIRA 18:6)

1. Kafedra gistologii (zav. - docsent M.G. Shubich) Kubanskogo
meditsinskogo instituta, Krasnodar.

SHUBICH, M.G.

Picric acid hydrolysis in the cytochemical Feulgen reaction for DNA as a means of preservation of glycogen and RNA in histological preparations. TSitologija. 6 no.3:384-387 My-Je '64. (MIRA 18:9)

1. Kafedra gistollogii Kubanskogo meditsinskogo instituta, Krasnodar.

SHUBICH, M.G.; KHODOS, A.B.

Histochemical method of nerve element staining in total anatomical preparations. Arkn. anat., glist. i embr. 47 no.7:102-104
Jl. 64.

1. Kafedra normal'noy anatomii (zav. - prof. V.S. Popov) i
kafedry gistolologii (zav. - M.G. Shubich) Kubanskogo meditsinskogo instituta, Krasnodar. Adres autorov: Krasnodar,
Sedina, 4, Kubanskiy meditsinskiy institut. Submitted February
20, 1963.

SHUBICH, M.G. (Krasnodar, ul. Lenina, 51, kv.12)

Nature and localization of periodate-reactive substances
of neutrophilic leucocytes. Arkh. anat., gist. i embr.
48 no.1:84-87 Ja '65. (MIFA 18:11)

1. Kafedra gistologii (zav.- dotsent M.G. Shubich)
Kubanskogo meditsinskogo instituta, Krasnodar. Submitted
July 15, 1963.

KUTAKH, G.I.; SHUBICH, M.G., dotsent

Method of preserving metachromasia in permanent preparations.
Arkh. anat., gist. i embr. 49 no.8:108-109 Ag '65.

(MIRA 18:9)

1. Kafedra gistologii (zav.- dotsent M.G. Shubich) i kafedra
biokhimii (zav.- prof. N.P. Pyatnitskiy) Kubanskogo meditsinskogo
instituta, Krasnodar.

SHUBICH, M.G.

Evaluation of the results of cytochemical determination
of alkaline phosphatase activity in blood neutrophils.
TSitologija 7 no.6:773-776 N-D '65. (MIRA 19:1)

1. Kafedra gistologii Kubanskogo meditsinskogo instituta,
Krasnodar. Submitted September 28, 1964.

KAZAKIN, V.V.; TSENIN, S.A.; SHUBIK, A.Ye.; RAGINSKIY, S.A., insh., red.

[Work norms and wages for construction workers] Normirovaniye i oplata
truda stroitel'nykh rabochikh. Moskva, Gos. izd-vo lit-ry po stroit.,
arkhit. i stroit. materialam, 1958. 127 p. (MIRA 11:?)
(Wages) (Construction industry)

BEREZIN, S.I., inzh.; SHUBIK, A.Ye.; RIMMER, V.S., inzh., spets.red.;
GERASIMOVA, G.S., red.izd-va; RYAZANOV, P.Ye., tekhn.red.

[Production norms for the expenditure of building materials]
Proizvodstvennye normy raskhoda stroitel'nykh materialov.
Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.mate-
rialam, 1960. 125 p. (MIRA 13:6)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut ekono-
miki stroitel'stva.
(Building materials)

SHUBIK, M.A., inzh.; FRIKKE, S.A., inzh.; ROZENFEL'D, N.B., inzh.; KOTRY, D.Ya.,
inzh.; MATVEYEV, Yu.M., doktor tekhn.nauk

Producing tubes of economical section on pilger mills. Stal' 23 no.4:
(MLR. 254)
346-348 Ap '63.

Ural'skiy nauchno-issledovatel'skiy trubnyy institut i Chelyabinskii
truboprovodnyy zavod.
(Pipe mills)

SHUBIK, V. D.

USSR/Medicine - Sinuses, Nasal
Medicine - Refrigeration, Effect of

Jan/Feb 49

"Changes in the Microflora of the Nasal Cavity Under the Influence of Refrigeration,"
S. P. Fel'dman, Cand Med Sci, V. D. Shubik, LOR Clinic, 1st Moscow Ord of Lenin
Med Inst, 5 pp

"Vest Oto-Rino-Laringol" № 1

Cold temperature tends to increase activity of staphylococci in nasal cavities. In some cases this increased activity of bacteria is evidenced by increased pathogenic characteristics in mice. However, cold also leads to a quantitative reduction in the number of microorganisms found in the nasal cavities.

PA 47/49T83

SHUBIK, V.M.; IRADIONOVA, L.V.

Clinical and bacteriological parallels in the treatment of dysentery with synthomycin associated with streptomycin. Zhur.mikrobiol. epid. i immun. 27 no.10:34-39 O '56. (MLRA 9:11)

1. Iz kafedry mikrobiologii i kafedry infektsionnykh bolezney I Leninskogo meditsinskogo instituta imeni I.P.Pavlova.

(DYSENTERY, BACILLARY, therapy,
chloramphenicol with streptomycin (Rus))

(CHLORAMPHENICOL, therapeutic use,
dysentery, bacillary, with streptomycin (Rus))

(STREPTOMYCIN, therapeutic use,
dysentery, bacillary, with chloramphenicol (Rus))

SHUBIK, V.M.; SAF'YAN, B.E.; SHUBIK, Yu.G.

Effect of certain occupational factors in the pulp and paper industry
on general immunological reactivity of the organism. Gig. i san. 24
no.9:62-64 S '59. (MIRA 13:1)

1. Iz otdela mikrobiologii Instituta eksperimental'noy meditsiny AMN
SSSR i Svetogorskoy gorodskoy bol'nitsy Lesogorskogo rayona Leningrad-
skoy oblasti.

(OCCUPATIONS AND PROFESSIONS)
(IMMUNITY)

SHUBIK, V.M.

Vaccination against dysentery. Zhur.mikrobiol.epid.i immun. 30 no.7:
19-20 Jl '59. (MIRA 12:11)

1. Iz Svetogorskoy gorodskoy bol'nitsy (Leningradskaya oblast').
(DYSENTERY, BACILLARY - immunol.)
(VACCINES)

SAF'YAN, B.E.; SHUBIK, V.M. (Leningradskaya oblast')

Changes in the general immunological reactivity of the organism
under the chronic action of low concentrations of carbon disulfide.
Gig. truda i prof. zab. 4 no.3:41-44 Mr '60. (MIRA 15:4)

1. Svetogorskaya rayonnaya bol'nitsa.
(CARBON DISULFIDE--TOXICOLOGY)

SHUBIK, V.M.

C-reactive protein and glutamic-pyruvic transaminase in infectious hepatitis in children. Vop. okh. mat. i det. 6 no.9:49-52 S '61.
(MIRA 14:9)

1. Iz kafedry infektsionnoy bolezney (zav. - prof. V.V.Kosmachevskiy)
Leningradskogo sanitarno-gigienicheskogo meditsinskogo instituta
i otdela mikrobiologii (zav. - chlen-korrespondent AMN SSSR prof.
V.I.Ioffe) Instituta eksperimental'noy meditsiny AMN SSSR.
(PROTEINS) (TRANSAMINASE) (HEPATITIS, INFECTIOUS)

GRONIN, I.P.; MUKHIN, V.F.; OZERYANSKAYA, I.G.; PASHININ, P.N.;
SHUBIK, V.M.; GOLUBEV, D.B. (Leningrad)

Laboratory diagnosis of Botkin's disease. Klin.med. no. 3:66-
68 '62. (MIRA 15:3)

I. Iz kafedry mikrobiologii (nach. ~ prof. A.A. Sinitskiy)
Voyenno-meditsinskoy ordena Lonina akademii imeni S.M. Kirova
i Leningradskoy infektsionnoy bol'nitsy imeni S.P. Botkina
(glavnnyy vrach M.M. Figurina).
(HEPATITIS, INFECTIOUS)

SHUBIK, V. M.; OZERYANSKAYA, I. G.; GOLUBEV, D. B. (Leningrad)

Comparative evaluation of some methods of laboratory diagnosis
of epidemic hepatitis. Vrach. delo no.7:101-104 Jl '62.
(MIRA 15:7)

1. Kafedra infektsionnykh bolezney (zav. - prof. V. V. Kosma-
chevskiy) sanitarno-gigiyenicheskogo meditsinskogo instituta,
infektsionnaya bol'nitsa imeni S. P. Botkina, otdel mikrobiologii
(zav. - chlen-korrespondent AMN SSSR, prof. V. I. Loffe) instituta
eksperimental'noy meditsiny AMN SSSR, kafedra mikrobiologii
(nachal'nik - prof. A. A. Sinitskiy) Voyenno-meditsinskoy ordena
Lenina akademii imeni S. M. Kirova.

(HEPATITIS, INFECTIOUS)

SHUBIK, V.M. (Leningrad)

Some problems of the pathogenesis of epidemic hepatitis. Vop.med.
virus. no.9:285-289 '64. (MIRA 18:4)

POLETOV, N.V., kand.tekhn.nauk; SHUBIK, Ye.M., inzh.

Laying cast iron waterpipes with rubber seals. Vod, 1 san.
tekhn. no. 8:23-24 Ag '65. (MIRA 18:12)

SHUBIK, V.M.; SAF'YAN, B.E.; SHUBIK, Yu.G.

Effect of certain occupational factors in the pulp and paper industry
on general immunological reactivity of the organism. Gig. i san. 24
no.9:62-64 S '59. (MIRA 13:1)

1. Iz otdela mikrobiologii Instituta eksperimental'noy meditsiny AMN
SSSR i Svetogorskoy gorodskoy bol'nitsy Lesogorskogo rayona Leningrad-
skoy oblasti.

(OCCUPATIONS AND PROFESSIONS)
(IMMUNITY)

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9

SHUBIN, A., zasluzhennyy deyatel' iskusstv RSFSR

Our theater. Volog. krai no.2:209-228 '60. (MIRA 14:11)
(Vologda-Theater)

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9"

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9

KLIMENKO, A., polkovnik; SHUBIN, A., podpolkovnik

How we organized and conducted refresher training courses. Tyl i
snab.Sov.Voor.Sil 21 no.3:13-18 Mr '61. (MIRA 14:6)
(Military education)

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9"

MAKAROV, P. (Moskva); IVANOV, M.; SHUBIN, A.

Before a court of comrades. Zhil.-kom. khoz. ll no.3:15 '61.
(MIRA 14:3)

1. Sekretar' partorganizatsii zhilishchno-ekspluatatsionnoy kontory
No.2 Kuybyshevskogo rayona, g.Leningrad (for Ivanov). 2. Predsedatel'
obshchestvennogo domovogo komiteta pri domoupravlenii No.3, g.Pyatigorsk Stavropol'skogo kraya (for Shubin).
(Labor courts)

SHUBIN, A., personalnyy pensioner

What our experience teaches. Zhil.-kom. khoz. 11 no.7:9-10 Jl '61.
(MIRA 14:7)

1. Predsedatel' obshchestvennogo domovogo komiteta pri domoupravlenii
No.3, g. Pyatigorsk; chlen Kommunisticheskoy partii Sovetskogo Soyuza
s 1919 g. (Pyatigorsk--Housing management)

SHUBIN, A.A.; PETROV, I.S.

Mechanization of cutting flesh side out of deer skins. Obm.tekh.opyt.
[MLP] no.26:30-31 '56. (MIRA 11:11)
(Tanning) (Deer)

BUNIN, D.A.; DANILYUK, T.I.; PERESETSKIY, A.Z.; RAPPOPORT-PALAGUTA, B.N.;
TAVROVSKAYA, A.F.; SHUBIN, A.A.; MANOLE, M.G., redaktor; POGREBNAYA,
L.L., redaktor; MURASHOVA, N.Ya., tekhnicheskiy redaktor

[German-Russian railroad dictionary] Nemetsko-russkij zheleznozodorozhnyi slovar'. Sost. D.A. Bunin i dr. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1957. 532 p.
(MIRA 10:4)
(German language--Dictionaries--Russian)
(Railroads--Dictionaries)

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9

SHUBIN, A.A.

Electric traction on the railroads of the German Federal Republic.

Rick. i teol.tiaga no.7:46-47 JI '57. (MIA 10'9)

(Germany, West--Electric railroads)

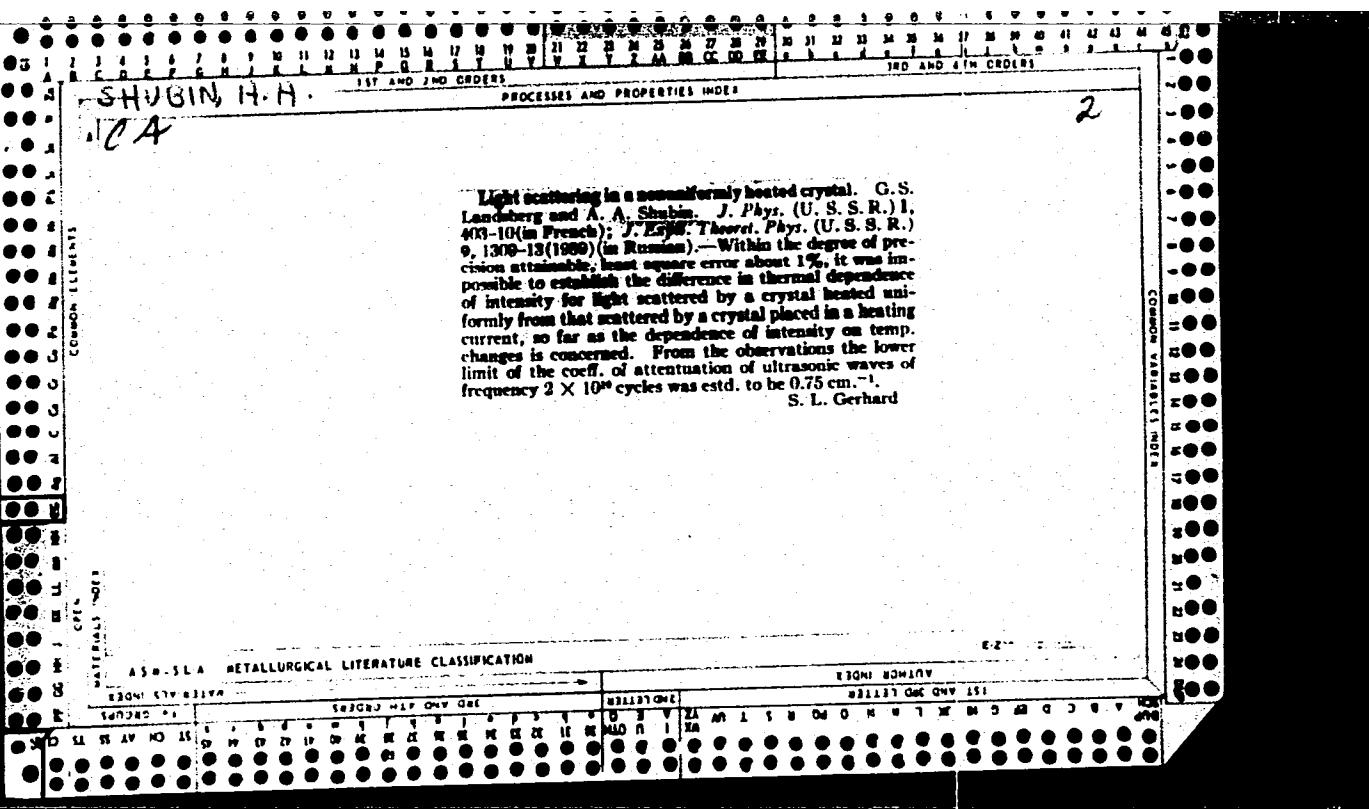
APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9"

SHUBIN, M.I.

PERESETSKIY, A.Z., inzh.; SHUBIN, A.A., inzh.

Elastic suspension of traction motors on electric rolling stock.
Elek. i tepl. tiaga 2 no.3:45-46 Mr '58. (MIRA 11:4)
(Electric locomotives) (Railroad motorcars)



SHUBIN, A. A., E. N. MAGID and KHVOSTIKOV, I. A.

Issledovaniye spektral'nogo sostava sumerechnogo sveta (Investigation of the Spectral Composition of Twilight Luminescence). Akademiya Nauk SSSR. Izvestiay. Seriya geogr. i geofiz., 1940, p. 675, tables, diagrs., 6 refs. Summary in German.

AS262.A6246 1940

SHUBIN, H-H.

PROCESSES AND PROPERTIES INDEX

1RD AND 4TH CDRS

Thermal conductivity of crystals. G. S. Landsberg and A. A. Shubnikov, *J. Exp. Theor. Phys.* (U. S. S. R.) **10**, 247-8 (1940). A study of the thermal cond. of rock-salt crystals for temp. interval 280-575°K. The curves show that the temp. gradient is not const., which means that the thermal cond. λ depends on the temp. The dependence of λ on temp. was first studied by Bucken (C. A. 3, 1850). For the temp. interval 83-373°K, he found the empirical expression: $\lambda = (C/T) - C_1$ where C and C_1 are const. The measurements of the present authors indicate that the same dependence holds also for higher temps. (up to 700°K.). Rokmalana Gamow

ASME-SEA METALLURGICAL LITERATURE CLASSIFICATION

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APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9"

SHUBIN, A. A. and KHVESTIKOV, I. A.

Polyarizatsiay svecheniya nochnogo neba v ul'trafioletovoy chasti spektra (Polarization of Night-Sky Luminescence in the Ultraviolet Portion of the Spectrum). Akademiya Nauk SSSR. Doklady, 1940, v. 27, no. 3, p. 221-223.

AS262.S3663 v. 27

SHUBIN, A. A.

Infrared spectra of organic acids. A. A. Shubin. Izvest. Akad. Nauk S.S.R., Ser. Fiz., 14, 342-7 (1950). Measurements were made in the region of the OH...O absorption band ($\lambda = 3-4 \mu$) in formic, acetic, propionic, butyric, isobutyric, and valeric acids in liquid and vapor phase at different temps. The intensity distribution of the absorption bands shows that they are composed of the dimer-absorption band and some intermol. vibration band. The band is the same for all acids with the exception of formic, in which it is shifted by 70 cm.⁻¹. Comparison with the absorption band of the liquids shows that these are also composed of dimers. At high temp. the dimers dissociate into monomers. Spectroscopically the degree of dissociation, the heat of dissociation, and the coeff. of molar absorption of all the acids in the liquid and the vapor state. The heat of dissociation is 13.9 Cal./mol. for formic, 16-17 Cal./mol. for all other acids. S. Pakswar

3

1967

SHUBIN, A. A.

USSR/Physics - Infrared Spectrometer

11 Sep 52

"Automatic Infrared Spectrometer," V. I. Malshev, M. N. Markov, A. A. Shubin

"Dok Ak Nauk SSSR" Vol 86, No 2, pp 273-276

Discusses the familiar difficulty of rapid and accurate measurements of coeff of absorption in the infrared region. Describes the block scheme of subject automatic infrared spectrometer, which is convenient for quant and qual analysis when combined with the use of a graduated curve obtained according to standard mixts. Recording time was 30 minutes in the case of nitrobenzol and polystyrol. Submitted by Acad G. S. Landsberg 16 Jun 52.

(CA 47 no. 14:6769 '53)

235T102

SHUBIN, A. A.

Chemical Abstracts
May 25, 1954
Electronic Phenomena
and Spectra

A double-beam infrared spectrophotometer. V. I. Malyshev, M. N. Markov, and A. A. Shubin. Izvest. Akad. Nauk S.S.R., Ser. Fiz., 17, 654-9 (1953); cf. C.A. 47, 6769h.—A spectrometer is described in which the measurements are made by means of an absorbing wedge on the calibration beam. A feature of this automatic spectrophotometer is the amplifier in which the main amplification is made at a frequency of 4000 cycles and a wide band and the remainder on a narrow 9-cycle band. The bridge has a 4000-cycle voltage, and the light on the bolometer is interrupted at a frequency of 9 cycles. The total amplification is 10^9 , the noise level 10^{-9} v., and the min. detected radiation 6×10^{-7} w. The spectrum 2.5- μ is registered in 30, 60, or 120°. The intensity of the diffused radiation is cut down with a MgO filter to 1%. The spectrum of polystyrene on a double-beam spectrometer is compared to the same spectrum on a single-beam set up. S. Pakswer

SHUBIN, A. A.

Dissertation: "Molecular Association of Carboxylic Acid and its Infrared Spectra."
Cand Phys-Math Sci, Physics Inst imeni P. M. Lebedev, Acad Sci USSR, 26 Apr 54.
(Vechernaya Moskva,--Moscow, Apr 54)

SO: SUM 243, 19 Oct 1954

Shubin, A. A.

AUTHORS: Motulevich, G.P. and Shubin, A.A.

51-5-13/26

TITLE: Determination of the Optical Constants of Metals in the Infrared Region. (Opredeleniye opticheskikh postoyannnykh metallov v infrakrasnoy oblasti)

PERIODICAL: Optika i Spektroskopiya, 1957, Vol. 2, Nr 5, pp. 633-636
(USSR)

ABSTRACT: Study of the elliptical polarisation of light, produced on reflection of linearly-polarised light from a metallic mirror, makes it possible to determine the complex refractive index $n - i\kappa$. In the region of frequencies where the optical constants are determined by the conduction electrons, the constants n and κ are related to the conduction electron concentration by

$$N = 0.112 \frac{n^2 + \kappa^2}{\lambda^2} \cdot 10^{22}$$

where N = the conduction electron concentration, λ = the wavelength of light in microns. This relationship applies only when the following inequality is satisfied:

$$\omega_0^2 \gg \omega^2 \gg \nu_0^2$$

Card 1/3 where ω_0 = frequency corresponding to the limit of quantum

Determination of the Optical Constants of Metals in the 51-5-13/26
Infrared Region.

absorption and η_0 = the number of collisions of electrons with the lattice. In this region N is independent of λ . To find n and κ by this method it is sufficient to know the phase difference between p and s -components of the reflected light and the azimuth ρ . The apparatus used is shown in Fig.1, where S is the source of infra-red radiation, M is a monochromator, Π is a polariser, m_1 , m_2 , m_3 and m_4 are mirrors of the studied metal, A is an analyser and B is a bolometer. The optical constants of silver, lead and tin were measured. These metals were prepared as mirrors by vacuum deposition on glass. The results for silver are shown in Fig.2. Curve 1 gives the refractive index (n) and curve 2 the coefficient of absorption (κ). Fig.2 contains also results obtained by other workers. Table 1 shows the values of n , κ and N for silver. The latter quantity is constant in the wavelength region studied and its value is about 5.2×10^{22} . For comparison the authors quote the concentration of atoms in silver as 5.9×10^{22} . Tables 2 and 3 give the results for

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Determination of the Optical Constants of Metals in the Infrared Region. 51-5-13/26

lead and tin respectively. In these two cases, since N depends on the wavelength, only the upper limits for N are to be found. These limits are $N < 2.3 \times 10^{22}$ for lead and $N < 3.5 \times 10^{22}$ for tin. The authors thank Acad. G.S. Landsberg for advice and interest. There are 2 figures, 3 tables and 6 references, 1 of which is Slavic.

ASSOCIATION: Physics Institute imeni P.N.Lebedev, Ac.Sc.USSR.
(Fizicheskiy Institut im.P.N.Lebedeva AN SSSR)

SUBMITTED: October 25, 1956.

AVAILABLE: Library of Congress.

Card 3/3

SOV/137-58-7-16029

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 299 (USSR)

AUTHOR: Motulevich, G. P., Shubin, A. A.

TITLE: The Polarization Method of Measurement of the Optical Constants of Metals in the Infrared Region (Polyarizatsionnyy metod izmereniya opticheskikh postoyannyykh metallov v infrakrasnoy oblasti)

PERIODICAL: Fiz. sb. L'vovsk. un-t, 1957, Nr 3 (8), pp 95-96

ABSTRACT: The investigation of optical constants of metals in the infrared region makes it possible to obtain a series of values that are actually indispensable for the electronic theory of metals. For the measurement the multiple reflection is used, which magnifies the phase displacement, enhances the precision in the measurement of the azimuth and permits an advance into the region of longer wave lengths. The experiments were carried out on a four-mirror apparatus. The optical constants λ (μ), n , x , $N \cdot 10^{-22}$ of Ag, Pb, and Sn mirrors manufactured by evaporation in a vacuum were measured.

Card 1/1 1. Metals--Optical properties 2. Infrared optical systems
--Materials V. O.

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9"

SHUBIN, A.A.

Molecular association of carboxylic acids and their infrared spectra. Trudy Fiz. inst. 9:125-180 '58. (MIRA 11:11)
(Acids, Organic--Spectra) (Molecular association)

MOTULEVICH, G.P.; SHUBIN, A.A.

On the role of interelectron collisions in metals in the infrared spectral range. Zhur.eksp. i teor. fiz. 34 no.3:757-758 Mr '58.

(MIRA 11:4)

1.Fizicheskiy institut im. P.N. Lebedeva Akademii nauk SSSR.
(Electrons) (Metals)

sov/56-34-3-40/55

AUTHORS: Motulevich, G. P., Shubin, A. A.

TITLE: On the Rôle of Collisions Between the Electrons in Metals
in the Infrared Spectral Region (O roli mezhelektronnykh
soudareniy v metallakh v infrakrasnoy oblasti spektra)

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1958,
Vol. 34, Nr 3, pp. 757 - 758 (USSR)

ABSTRACT: The contribution of the collisions between the electrons to
the surface impedance of the metal is **unimportant at**
low frequencies. Yet this contribution increases with in-
creasing frequency, L. P. Pitayevskiy (Reference 2) and
R. N. Gurzhi (Reference 3) calculated this increase quan-
titatively for the infrared region of the spectrum. Accord-
ing to these elaborate investigations, the collisions between
the electrons lead to the occurrence of an additional mem-
ber of the kind B/λ^2 in the real part of surface impedance;
B denotes in this connection a factor which does not depend
on the wavelength λ of the light. The measurements of the
optical constants of silver carried out by the authors, show

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SOV/ 56-34 -3-40/55

On the Rôle of Collisions Between the Electrons in Metals in the Infra-red Spectral Region

that this additional member is essential within the additional spectral region ($1 - 6\mu$). A diagram demonstrates the dependence of the real part of R of the surface impedance R on λ . The experimental points match well with the curve $(c/\pi)(R_0 + B/\lambda^2)$, in which case $(c/\pi)R_0 = 0.96 \cdot 10^{-2}$ and $(c/.)B = 1.40 \cdot 10^{-2} \mu^2$. R_0 and B do not depend on λ in this connection and c denotes the light velocity. The measurements of the real part of the surface impedance really allow the explanation of the rôle of the collisions between the electrons. The terms derived for the clearly marked anomalous skin-effect can be applied for silver within the spectral region from 1 to 6μ for the determination of the concentration N of the conducting electrons and of the velocity v of the electrons on the Fermi-surface. The reflection of the electrons on the surface of the metal is assumed to be diffuse in this case. The authors obtained the value $v = 2.4 \cdot 10^8$ cm/sec. for silver. The measurements of the optical constants of tin and lead within the spectral region from 1 to 6μ showed that the contribution of the collisions

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SOV/56-34-3-40/55

On the Role of Collisions Between the Electrons in Metals in the Infrared Spectral Region

between the electrons to the real part of the surface impedance is essential for these two metals, too. But with these metals, the term derived for a distinctly marked skin effect must not be used, which makes the evaluation of the results more complicated. The calculation of the surface impedance and of the optical constants of the metal within the range $\omega \sim \nu$ is far less reliable. ω denotes the frequency of light in this connection and ν , the frequency of the collisions of electrons with the lattice. The evaluation of the upper limit of N as obtained by the same authors previously (Reference 4), is too accurate and is precized here. But these data, too, can be considered only approximately correct, since the theoretical formulae used in their calculation are not quite reliable. There are 1 figure and 5 references, 4 of which are Soviet.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR
(Physics Institute imeni P.N.Lebedev AS USSR)

SUBMITTED: December 7, 1957
Card 3/3

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9

GOLOVASHKIN, A. I.; MOTULEVICH, G.P.; SHUBIN, A.A.

Measuring optical constants of metals at low temperatures. Prib.i.
(MIRA 13:11)
tekh.eksp. no.5:74-76 S-0 '60.

1. Fizicheskiy institut AN SSSR.
(Metals at low temperatures)

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110018-9"

GOLOVASHKIN, A.I.; MOTULEVICH, G.P.; SHUBIN, A.A.

Determining microscopic characteristics of aluminum from measurements of its optical constants and its conductivity. Zhur. eksp. i teor. fiz. 38 no.1:51-55 Jan '60. (MIRA 14:9)

1. Fizicheskiy institut im. P.N.Lebedeva AN SSSR.
(Aluminum--Optical properties) (Aluminum--Electrical properties)

BUNIN, Dmitriy Anatol'yevich; SHUBIN, Anatoliy Alekseyevich;
BOGOMOLOV, B.A., red.; AKSEL'ROD, I.Sh., tekhn. red.

[Concise German-Russian dictionary on automatic and remote
control] Kratkii nemetsko-russkii slovar' po avtomatike i
telemekhanike. Moskva, Glav.red.inostr.nauchno-tekhn.slova-
rei Fizmatgiza, 1962. 531 p. (MIRA 15:9)

(German language—Dictionaries—Russian language)

(Automatic control—Dictionaries)

(Remote control—Dictionaries)

MOTULEVICH, G.P.; SHUBIN, A.A.

Determining the microcharacteristics of indium by measuring
the optical constants in the infrared region and the
specific conductivity. Zhur. eksp. i teor. fiz. 44 no.1:
48-52 Ja '63. (MIRA 16:5)

1. Fizicheskiy institut imeni P.N.Lebedeva AN SSSR.
(Indium—Optical properties) (Indium—Electric properties)
(Collisions (Nuclear physics))

L 10727-65 EWT(1)/EEC(t) IJP(c)/SSD/AS(mp)-2/ESD(t)/ASD(a)-5/AFMDC/AFWLA
ESD(dp)/ESD(gs) S/0056/64/047/003/0840/0847

ACCESSION NR: AP4046396

AUTHORS: Motulevich, G. P.; Shubin, A. A.

TITLE: Influence of the shape of the Fermi surface of gold on the
optical constants and on the Hall effect ¹³

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 47,
no. 3, 1964, 840-847

TOPIC TAGS: gold, Fermi surface, thin film, Hall effect, electrical
conductivity, optical constant

ABSTRACT: To ascertain the degree to which nonsphericity of the real
Fermi surface influences the optical properties and the Hall effect,
these quantities were measured in the 1-12 μ spectral region in
simultaneously prepared gold films. A formula is derived for es-
timating the contributions made by electrons on different portions
of the Fermi surface to the optical constants and to the Hall effect.

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ACCESSION NR: AP4046396

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The use of this formula necessitated also the measurement of the static conductivity at 293 and 78K, the ratio of the residual resistance to the resistance at room temperature, and the density of the samples. The gold was evaporated from tungsten vessels on polished glass to film thickness 0.5--1.0 micron. The optical constants were measured by a polarization method employing four-fold reflection, using previously described apparatus (Optika i spektroskopiya v. 2, 633, 1957). All other quantities were measured by conventional means. The combined measurement of the optical constants and of the Hall effect on the same samples makes it possible to determine the mean velocities of the electrons and their mean effective masses on different portions of the Fermi surface. From this it is deduced that small deviations of the Fermi surface from sphericity have a small effect on the optical constant, but a noticeable effect on the Hall emf. "We are grateful to V. L. Ginzburg and L. V. Keldy*sh for a discussion of the results of this work." Orig. art. has: 2 figures, 5 formulas, and 3 tables.

Card 2/3

L 10727-65

ACCESSION NR: AP4046396

ASSOCIATION: Fizicheskly institut im. P. N. Lebedeva Akademii nauk
SSSR (Physics Institute, Academy of Sciences SSSR)

SUBMITTED: 03Apr64

ENCL: 00

SUB CODE: SS, OP

NR REF Sov: 009

OTHER: 006

Card 3/3

MASLOV, N.P., inzh.; TSYMUKHIN, B.A., inzh.; SHUBIN, A.A., inzh.

Some problems of the design of the gear section of asynchronous macromotors. Elektrotehnika 35 no.12:57-58 D '64. (MIRA 18:4)

L 15198-66 EWT(d)/EWT(m)/EWP(w)/T/EWP(y)/EWP(k)/EWP(h)/EWP(l)/ETC(m)-6 LJP(c)
 ACC NR: AT6001711 WW/EM/DJ/GS SOURCE CODE: UR/0000/65/000/000/0317/0342

AUTHOR: Shubin, A. A.

ORG: none

TITLE: Investigation of the effects of vibrations originating in bearings on the accuracy of rotor balancing

SOURCE: Uravneniye mashin i priborov (Balancing of machinery and instruments).
 Moscow, Izd-vo Mashinostroyeniye, 1965, 317-342

TOPIC TAGS: rotor balancing, balancing theory, ball bearing oscillation, vibration, vibration damping, harmonic oscillation, oscillation, ball bearing

ABSTRACT: The effects of vibrations originating in the rotor support bearings on the accuracy of rotor balancing are discussed. The equation of motion of an unbalanced rotor (see Fig. 1) is formulated and solved to give the rotor motion, ψ as

$$\psi = \frac{q_0}{\omega_0^2 - \omega^2 - \frac{q_0^2}{4(\omega_0^2 - 4\omega^2)}} \cos \omega t + \frac{q_0}{2(\omega_0^2 - \omega^2)(\omega_0^2 - 4\omega^2) - \frac{q_0^2}{2}} \sin 2\omega t$$

where

$$\omega_0^2 = \frac{k}{q}, q_0 = \frac{mr}{W_0} \omega^2,$$

ρ = half of radial clearance, which represents a complicated oscillation including

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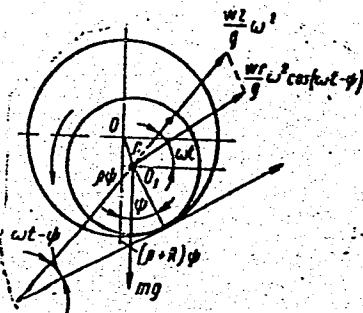


Fig. 1. Geometry of unbalanced rotor in bearing.

higher harmonics. In a ball or roller bearing with radial clearance, the periodic unsymmetrical location (w.r.t. the vertical axis) of the balls or rollers results in a periodic forcing of the rotor to the left and right with a frequency

$$n\Omega = \frac{nD}{2(D+d)} \omega,$$

where n = number of rollers, corresponding to the frequency of roller passage. For small clearances this results in disturbing forces on the shaft which are derived as

$$Q_y = q_0 \sin n\Omega t \sin \left(\frac{\beta}{2} - \Omega t \right);$$

$$Q_z = q_0 \sin n\Omega t \cos \left(\frac{\beta}{2} - \Omega t \right),$$

(where β = angle through which the force acts). The equation of motion for the
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shaft is formulated with these disturbing forces and the solutions are obtained for the time periods $t \geq \beta/\Omega$ and $t \leq \beta/\Omega$. These equations contain five harmonic components, the sum of the first two of which results in beats (due to the small difference in their frequencies). The envelope of the higher frequency vibrations (resulting from these beats) has a frequency close to the rotor frequency and represents an important source of error in the rotor unbalance signal. The above theoretically derived oscillations have been experimentally confirmed. The amplitude-modulated oscillations can be represented in the general form

$$\varphi(t) = \varphi_0 \left[1 + \sum_{k=1}^5 M_k \cos(p_k t + \Phi_k) \right] \cos(\omega t + \psi_0)$$

or as

$$\varphi(t) = \varphi_0 (1 + M_e \cos pt) \cos \omega t,$$

(where M_e = modulation coefficient, p = low modulation frequency) for the case discussed here. To eliminate the effects of these parasitic oscillations, the mechanical or electronic filter used on the unbalance signal must have a narrow enough frequency response to exclude parasitic frequencies near the rotor frequency yet must be wide enough to accommodate rotor speed errors. From the derived equations it becomes possible to estimate the filter band width and rotor speed control requirements to achieve a desired balancing accuracy. Orig. art. has: 35 formulas and 10 figures.

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L 15673-66 EWT(m)/EWP(w)/T/EWP(t)/EWP(b) IJP(c) JD
ACC NR: AP6000196 SOURCE CODE: UR/0056/65/049/005/1431/1434

AUTHOR: Motulevich, G. P.; Shubin, A. A.; Shustova, O. F.

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TITLE: The effect of periodic structure on the optical properties of aluminum

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49⁴, no. 5, 1965,
1431-1434

TOPIC TAGS: aluminum, optic property, refractive index, ir phenomenon, skin effect, conduction electron, electron collision, metal crystal, metal crystallization, light polarization, electron interaction, periodic system

ABSTRACT: The authors measured the real and imaginary parts of the refractive index of crystalline and amorphous aluminum in the infrared region. In both cases, layers of 99.99% pure aluminum were evaporated in vacuum on a glass substrate. A crystalline or amorphous structure was obtained by varying the cooling rate. The measurements were made by a polarization technique, using four-color reflection of light from the investigated surface, as described by the authors earlier (Optika i spektroskopiya, v. 3, 361, 1957). The measurements have shown that the skin effect exhibits a slightly anomalous character in crystalline aluminum at room temperature, but in amorphous aluminum it is almost normal. The concentration of the conduction electrons and the effective collision frequency of the electrons, which determine the refractive index, are calculated, and it is shown that on going from crystalline to amorphous layers, the conduction electron concentration increases from approximately

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one electron per atom to three electrons per atom. The effective frequency of electron collision also increases noticeably on going from the crystalline to the amorphous state. This strong influence of the periodic structure on the atomic properties of polyvalent metals can be attributed to the different role played by the inter-electronic interaction in the two forms.. Orig. art. has: 2 formulas and 2 tables.

SUB CODE: 20,07,11 / SUBM DATE: 12Jun65 / ORIG REF: 010 / OTH REF: 001

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